

FIELD TRIP REPORT

DATE: JUNE 14 – 17, 2005
TITLE: RELICT DACE SITE LOCATION
FIELD PARTY: CHRIS A. CROOKSHANKS, HEATHER TALLERICO,
BRIAN HARASHA, & MATT MAPLES

PREPARED BY: CHRIS A. CROOKSHANKS _____

OBJECTIVE

To characterize known site locations of Relict dace ascertained from all previous survey activities.

BACKGROUND

The relict dace (*Relictus solitarius*) is the lone endemic fish species native to pluvial Lakes Franklin, Gale, Waring, and Steptoe. Situated to the south of pluvial Lakes Lahontan and Bonneville, this contiguous, closed basin system desiccated in the Pleistocene epoch approximately 10,000 years ago. Historic range of the relict dace is limited to the intermountain valleys of Ruby, Butte, Steptoe, and Goshute in contemporary Elko and White Pine Counties. Spring Valley is adjacent to Steptoe Valley and currently supports introduced populations of the species. Current distribution of the species is limited to isolated spring systems on both public and private property generally located on the valley floor.

Until 1995, the relict dace was a category two taxa on the U.S. Fish and Wildlife's list for potential listing as endangered or threatened. The Nevada Department of Wildlife currently classifies it as a State Sensitive species.

Although various springs had been periodically sampled in the past, the first and only comprehensive study of all available habitats within known historic range was conducted in 1994 and 1995. All known populations and aquatic sites in were surveyed in an effort to determine the distribution, status, and trend of the species. The survey identified 27 individual populations of relict dace across a wide variety of habitat types in the five valleys. Based on the number of populations found and wide distribution of these populations, the species was determined to be secure and was predicted to remain so for the foreseeable future.

PROCEDURES

Prior to field activities, a thorough file search was conducted to ascertain legal site descriptions (township, range, section) from all previous survey efforts for the species. Site locations were plotted on a USGS 1:100,000 topographical map. After located in the field, all sites were marked and given named waypoints with a Garmin 12 CX hand-held GPS unit. At each site, notes pertaining to physical description, location, land ownership status, potential survey methods,

and current water and vegetation status were recorded. In addition, an effort was made to locate sites not previously surveyed that could potentially hold populations of fish. Notes were taken and waypoints were given at these sites as well.

PROJECT DETAILS AND EVALUATION

Following is a table with all established waypoints created. Waypoints with an RD prefix are sites that held fish in 1994 & 1995 while fishless sites from the previous survey begin with a ND prefix.

Table 1. Relict dace site locations and descriptions

| Waypoint Name | Corresponding Name From 1994 / 1995 | UTMs | Notes and Comments |
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| STEPTOE VALLEY | | | |
| RD1 | 3-C Ranch / SVWMA | 0689226 4340791 | Previous work completed in recent years. Dace present in Fish Pond Springs and Shallenberger Springs outflows. Chubs also present. Waypoint marked on Fish Pond Springs outflow. See field trip reports. |
| RD2 | Georgetown Ranch | 0684562 4350589 | Murray Creek is combined with treated effluent below the sewer and used to treat Bub Haywards fields until Nov. Access is through gate south of Lackawanna Springs. When not used for irrigation, Murray Creek is ditched to 2 big catchment ponds. Both dry. |
| RD2A | Murray Creek | 0683643 4348014 | Murray Creek at dog pound. Flows behind city corrals w/ decent habitat. Crosses county road and goes to Hayward's place for irrigation. Report of trout released by pound. |
| RD3 | Dairy Ranch Springs / McGill Pool | 0691245 4364765 | McGill Pool outflow. At least 3 exotic species present – guppies, chub-like, and zebra-striped cichlid-looking fish. A large pond is located 200 meters below the dairy. See Map. |
| RD3A | McGill Springs Road Crossing Below Dairy | 0691302 4365674 | Waypoint is at road x-ing aqueduct just below dairy – many unk. sp. fish observed – some gravid (look like X betw. Chub and springfish) NOTE: 3 ditches present W. of (below) the dairy that flow east toward Bassett. 1) N. ditch (RD3A) has a few big trees at upper end. 2) Middle ditch – along big treeline - Small but good water 3) South ditch - has Russian olives. |
| RD3B | Midpoint of McGill Springs Outflow | 0689352 4366472 | Midway point of the 3 ditches between McGill Pool and Tailings Creek. Waypoint is on S. ditch w/ decent water w/ Russian olives S. of corrals. Access is via N. ditch road that cuts S. to middle ditch and corrals. Poor water in N. ditch at cutoff to corrals. Middle ditch dry at cutoff. |
| RD3C | Spring W. of McGill Pool | 0691196 4364772 | Springhead pond located W. of (below) McGill pool over fence – fish present. |
| RD3D | West End McGill Springs Outflow | 0688629 4366864 | W. end of outflows. 1 single ditch next to pipeline. Waypoint is on road that cuts from main Bassett road S. to tailings. Good water at road x-ing. Flood irrigation around RD3D. Another culvert is located 100 meters S. of RD3D on same road. |
| RD4 | Tailings Creek at Pumphouse | 0687232 4367601 | Confluence of McGill Springs outflow and Tailings Creek. Decent habitat on both sides of road at pumphouse. |
| RD5 | Lusetti Ranch / Grass Springs 1 | 0680704 4371503 | Main pond below ranch house. Fed by 2 small springs – small pool at head of S. spring. Outflows to pond have no habitat. Carp in main pond. Owner – Thelora Kemp. |
| RD5A | Lusetti Ranch / Grass Springs 2 | 0680377 4371447 | Small pond right next to houses. Owner said it was dried completely in 2004. 3 seeps are located just to the north of the pond in the trees. Pothole spring at the top of 1 – no other habitat. |
| RD5B | Lusetti Ranch / Grass Springs 3 | 0680443 4372017 | Small pond (1 st) 600 meters N.E. of ranch house. Connected to another small pond (2 nd) 150 meters to the N. by a N-S channel. Poor habitat in outflow of 2 nd pond. YOY dace in 1 st pond - many dace in 2 nd pond. N. Leopard frog tads in 2 nd pond. Access is via gate just N. of corrals at ranch. Numerous seeps w/ outflows in vicinity of RD5B – no habitat or potential. |
| RD5C | Lusetti Ranch / Grass Springs 4 | 0679892 4374461 | N-S channel fed by seeps w/ 1000s of dace. Channel arises to the N. in a big depression w/ many seeps. N. leopard frogs present. NOTE: Many seeps / springs checked in the vicinity and to the N. (incl. stonehouse) – no habitat. See Map. |
| RD6 | Steptoe Ranch 1 | 0679373 4377182 | Small pond in trees 800 meters S. of Steptoe Ranch. Outflow heavily vegetated w/ no habitat. Additional seep 50 meters to the S. – no habitat. Dace present. Owner - Don Phillips. |
| RD6A | Steptoe Ranch 2 | 0679331 4377919 | Small pond next to single-wide trailer just S. of main ranch HQ. Outflow goes to 2 nd pond – dry. No habitat in outflow. |
| RD6B | Steptoe Ranch 3 | 0679435 4378130 | Seep complex right above yellow house w/ good outflow. Waypoint is at start of a channel system just above yellow house. Channel flows through ranch, around corrals and then to the S. where it is then diverted toward valley for flood irrigation. Carp, goldfish, and dace in channel system. |
| RD6C | Steptoe Ranch 4 | 0679263 4378315 | 2 ponds N. of brick house. Outflows w/ good water connect and flow to the N. a long way for irrigation. Carp in ponds and outflow. A spring is located behind the brick house w/ good outflow. Flows E. to N. side of corrals where it splits in two and used for irrigation. Dace present. |

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| RD6D | Steptoe Ranch 5 | 0679597 4379047 | N-S outflow channel from 2 ponds (RD6C) turns E. for flood irrigation. Dace present. |
| RD6E | Steptoe Ranch 6 | 0679661 4379469 | Small fenced spring w/ very small pool. N. of ranch and 400 meters S. of 2 big poplars. Marginal habitat. |
| RD7 | Cordano / Murphy / Dolan Ranch 1 | 0690948 4438058 | 3 springheads / ponds directly behind ranch house. Small channels flow to the E. – heavily vegetated w/ little water |
| RD7A | Cordano / Murphy / Dolan Ranch 2 | 0691321 4437577 | 6-8 springheads flow into collection ditch / ponds by lone tree. Pond – 2' deep. Outflow on N. side of pond. Another pond 50 meters below tree. Dace present in both ponds. |
| ND1 | Ruth Pond | 0674906 4349549 | Between Highway 50 and Ruth below bridge over RR tracks. Pond ½ full of water – little habitat. Water is multi-colored and looks contaminated. Waypoint marked on bridge. |
| ND2 | Tailings Creek Headwater Pond | 0688506 4361990 | Spring pond (20' x 20' x 4' deep) 0.7 mile above Tailing Creek headwaters (ND2A). On N. side of ditch road next to Russian olive. |
| ND2A | Tailings Creek Headwaters | 0687865 4362920 | Headwaters of Tailing Creek. No water betw. ND2 and ND2A. Headwaters to pumphouse is 2.9 miles. Good flow 0.7 mile below ND2A. |
| ND2B | Steptoe Slough | 0684453 4369790 | Steptoe Slough – W. side. Carp hunting location. |
| ND3 | Duck Creek – Below Bassett | 0684604 4371271 | At fenceline just below Bassett Lake. |
| ND3A | Duck Creek – N.E. of Lusetti Ranch | 0682344 4374428 | See Map. |
| ND3B | Duck Creek – E. of Steptoe Ranch | 0685485 4382082 | At RR crossing of Duck creek. Access is via 2-track along fenceline. |
| ND3C | Duck Creek – Old Slaughterhouse | 0688075 4387164 | 1 mile N. of 3 rd Creek. 2.5 miles W. |
| ND3D | Duck Creek – Warm Springs | 0689100 4391550 | Monte Neva road. |
| ND3E | Duck Creek - Schellbourne | 0688333 4408417 | Schellbourne road. |
| ND4 | Monte Neva Hot Springs 1 | 0687934 4393180 | Hot spring flows into 2 small ponds for bathing. Outflows and additional springs flow into big (5 acre) pond w/ bass. Numerous springs located below big pond. Owner – Jim Asuras |
| ND4A | Monte Neva Hot Springs 2 | 0688823 4393244 | Series of man-made channels and small ponds fed by spring below big pond at Monte Neva. System created by Jim. Dace and additional unk. species present. Great habitat. |
| ND5 | Cold Spring | 0688750 4396211 | 1.5 mile N. of Monte Neva and 0.75 miles E. 2 springheads and outflows. Heavily vegetated. Marginal habitat. |
| ND6 | Unnamed Spring | 0687739 4400303 | 4 miles N. of Monte Neva and 0.5 miles E. Heavily vegetated springhead w/ short outflow. Marginal habitat. |
| ND7 | Unnamed Spring | 0686176 4404574 | Below Borchart Spring on E. side of county road – hidden. Heavily vegetated springhead w/ outflow to 2 nd vegetated springhead w/ tules. Additional spring at bottom of fenceline – Little to no habitat in all 3. |
| ND8 | Unnamed Springs | 0687975 4427023 | Springhead at stone mill structure with channel flowing E. Flows by 2 big trees and cuts N.E. toward a pond. Springhead and channel mostly vegetated. Channel then flows N. Terminus pond located E. of channel. Decent habitat. |
| ND9 | Unnamed Spring | 0690955 4439621 | Small springhead feeds long, narrow, shallow channel. Channel splits in 2 200 meters below springhead at road. Big man-made ditch present. |
| ND10 | Lookout Springs | 0717660 4441033 | 2 springheads at N.E. end. 4 small ponds to the S.W. Upper 2 ponds choked w/ tules. Open water in lower 2 ponds. No outflows. Poor habitat. Area heavily grazed. |
| ND11 | Lackawana | 0684129 | Dry springheads at cement foundation. No water. |

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| | Springs | 4350200 | |
| ND12 | Carter Ranch/Flat Canyon | 0689014 4431148 | Road to large pond is blocked. Lodgepole across road at cattleguard. Nobody around to gain access. |
| SPRING VALLEY | | | |
| RD20 | Shoshone Ponds | 0723783 4312654 | Series of three small ponds in succession + additional stock pond located ¼ mile to the north. Three ponds are fed by artesian well and are a man-made refugium. Relict dace introduced into southernmost pond of the 3 in 1977 from Lusetti Ranch. Remaining ponds have Pahrump poolfish. |
| RD21 | Keegan Ranch | 0714991 4369184 | 2 springheads at N. end by Russian olive feed into channel along old dike. 3 smaller springheads along west side of channel. Outflow goes through break in dike - good habitat. Spring on S. end is near 2 big trees. Water flows south by corrals and east to a small, shallow pond by the dike. See Map. |
| RD22 | Stonehouse Springs | 0710500 4406200 | At junction of N. Spring Valley road and Tippet's Pass road at old stonehouse. Access denied by Hank Vogler. Contact Vidler Water Company for permission. |
| RD23 | Spring Valley Creek / Vogler's | 0709200 4410800 | Bottom of Schellbourne Pass – E. side. Access denied by Hank Vogler. Contact Intermountain Ranches for permission. Vogler says dace are present. |
| ND 20 | Unnamed Springs E. of Becky Peak | N/A | Could not be found. Does not exist |
| BUTTE VALLEY | | | |
| RD30 | Odgers Creek Spring Source | 0671504 4449988 | 6 springheads with 3 main channels that form creek flowing west. Moderate flow w/ gravel bottom – 4"-6" deep. Springheads are near old corral. Decent habitat at southern springhead. |
| RD30A | Odgers Creek | 0668394 4455266 | Meandering creek with great habitat – pools 4' deep. Slow and swift water. Dace observed. |
| RD31 | Spring NE of Odgers Creek | 0671114 4453631 | Large complex of 14+ springheads plus complex downstream of 5+ springheads. All heavily vegetated – some openings but < 4" deep – not a significant amount of water – mostly wet meadow. Flows into Odgers Creek |
| RD32 | Quilici / Delker Spring | 0664888 4466161 | Northwest of Odgers Creek. Spring near old wood building – fenced. Springhead choked w/ tules – little open water. Pool 25 meters below springhead but not connected. Pool is 15' in diameter and very deep w/ lots of dace. |
| RD33 | Atwood/Kirkpatrick Ranch | 0674531 4471120 | Complex of three 3 separate ponds and associated spring sources. 1) springhead 100' N. of ranch house flows into pond (2' deep). Outflow with open water flows north directly behind house. Bass observed. 2) Springhead due west of ranch house in meadow. Flows into pond (3'-4' deep). Outflow channel flows north. Bass observed. 3) 2 springheads 200 meters south of ranch house – both feed small pond (1'-2' deep). Good habitat. Stewart Taylor – Owner. See Map. |
| ND30 | Owens Ranch Springs | 0671335 4438608 | Pond (3' deep) with outflow on N. side. Small outflow on N.W. side. Another outflow on W. side through culvert @ valve. Outflows meet and flow to the W. 4 inflows on E. side - <6" deep. Decent habitat. |
| ND31 | Stratton / Paris / West Ranch | 0672800 4443600 | Main West Ranch in Butte Valley. 3 Ponds. 1) Near Ranch house (100' x 100' x 1' deep), fed by piped spout. Outflow used for irrigation – overflow feeds 2 nd pond. 2) 200' x 275' x ¾' deep. Fed by upper pond overflow and from spring below tree pond. 3) Tree pond |
| GOSHUTE VALLEY | | | |
| RD40 | Twin Springs / Phalen Creek | 0684365 4468912 | 2 springheads merge into 1 channel (2' deep). Clear, slow moving, w/ good cover. Many dace observed above and below culvert. |
| RD41 | Johnson / Big Springs Ranch | 0709251 4537677 | Enormous spring complex w/ multiple springs, channels and ponds. 1 large complex below ranch house – springs located in large meadow area. Most springs are fence. Some, highly vegetated, others w/ little ponds. Water from springs flows into collection ditch. Channels highly vegetated but collection ditch has decent habitat. Some water from collection ditch flows E. Channel N. of ranch house highly vegetated. N.E. of ranch house – channel w/ lots of vegetation w/ some open water. All ponds have good fish habitat. Dace present in entire collection ditch. See Map. |
| RD41A | Johnson / Big Spring Ranch II | 0709396 4537557 | Pond w/ fish at Johnson Ranch. 2 other fenced ponds nearby. |
| ND40 | Currie Pond | 0691352 | 100 meters southeast of where road stops at RR x-ing. Series of deep, open ponds south of the tracks. Good habitat in ponds and |

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| | | 4457150 | outflow. Trout observed. Access via road w/ green gate on E. side of RR tracks. |
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RECOMMENDATIONS

That a comprehensive survey determining the status and distribution of Relict dace and its habitat be conducted in the near future.